IN THE CLAIMS

1.   (cancelled)

2.   (currently amended) A radio communication apparatus operating as a control station of a given one of a plurality of wireless networks that co-exist, at least in part, in a common radio communication environment wherein a plurality of wireless networks operating under the control of a control station coexist, the radio communication apparatus comprising:

beacon transmitting means for setting a transmission frame period of a local the given wireless network and for transmitting, at a predetermined time within the transmission frame period, beacon information regarding resource allocation at a predetermined position of the transmission frame period;

interference detecting means for detecting whether the local given wireless network interferes with another one of the plurality of wireless networks; and

buffer frame period setting means for setting, upon detection of interference between the given wireless network and the another wireless network, a buffer frame period having a that is of different length than the transmission frame period to change the position timing of a the transmission frame period upon detection of interference between networks,

wherein the interference detecting means detectings interference of the beacon information based on the basis of parameters obtained by receiving further beacon information received transmitted from the another network.

3.   (cancelled)

4.   (currently amended) The radio communication apparatus according to Claim 2, wherein

the transmission frame period includes a contention free period wherein data communication is effected based on range reservation/allocation, and

the interference detecting means detects whether contention free periods are synchronized between <u>the given wireless network and the another wireless</u> network~~s~~ based on parameters obtained by receiving <u>the further</u> beacon information ~~transmitted from another network~~.

5.   (currently amended) The radio communication apparatus according to Claim 4, wherein the buffer frame setting means sets a buffer frame period that is shorter than ~~a~~ <u>the</u> transmission frame period ~~so as~~ to ease the interference ~~of~~ <u>between the</u> contention free periods ~~between~~ <u>of the given wireless network and the another wireless</u> network~~s~~.

6.   (currently amended) The radio communication apparatus according to Claim 2, wherein the interference detecting means detects interference between <u>the given wireless network and the another wireless</u> network~~s~~ based on information <u>received</u> from a <u>further</u> radio communication apparatus in the ~~local~~ <u>given wireless</u> network.

7.   (currently amended) The radio communication apparatus according to Claim 2, wherein the buffer frame setting means sets a buffer frame period that is shorter than ~~a~~ <u>the</u> transmission frame period ~~so as~~ to ease collision ~~of~~ <u>between</u> transmission positions of beacon information ~~between~~ <u>of the given wireless network and the further beacon information of the another wireless</u> network~~s~~.

8.   (currently amended) A radio communication method for a control station ~~to~~ <u>of</u> a given one of a plurality of wireless networks that ~~operate~~ <u>co-exist, at least in part,</u> in a <u>common</u> radio communication environment ~~wherein a plurality of wireless networks operating under control of the control station coexists~~, the method comprising:

a beacon transmission step for setting a transmission frame period of ~~a local~~ the given wireless network and for transmitting, at a predetermined time within the transmission frame period, beacon information regarding resource allocation ~~at a predetermined position of the transmission frame period~~;

an interference detection step for detecting whether the ~~local~~ given wireless network interferes with another one of the plurality of wireless networks; and

a buffer frame period setting step for setting, upon detection of interference between the given wireless network and the another wireless network, a buffer frame period that is of different length than ~~a~~ the transmission frame period, ~~thereby~~ to change a ~~position~~ timing of the transmission frame period ~~upon detection of interference between networks~~,

~~wherein~~ the interference detection step detecting~~s~~ interference of the beacon information based on ~~the basis of~~ parameters obtained by receiving further beacon information received ~~transmitted~~ from the another network.

9.   (cancelled)

10.   (currently amended) The radio communication method according to Claim 8, wherein

the transmission frame period includes a contention free period wherein data communication is effected based on range reservation/allocation, and

the interference detection step detects whether contention free periods are synchronized between the given wireless network and the another wireless network~~s~~ based on parameters obtained by receiving the further beacon information ~~transmitted from another network~~.

11.   (currently amended) The radio communication method according to Claim 10, wherein the buffer frame setting step

4

sets a buffer frame period that is shorter than ~~a~~ the transmission frame period ~~so as~~ to ease the interference ~~of~~ between the contention free periods ~~between~~ of the given wireless network and the another wireless networks.

12. (currently amended) The radio communication method according to Claim 8, wherein the interference detection step detects interference between the given wireless network and the another wireless networks based on information received from a further radio communication apparatus in the ~~local~~ given wireless network.

13. (currently amended) The radio communication method according to Claim 12, wherein the buffer frame setting step sets a buffer frame period that is shorter than ~~a~~ the transmission frame period ~~so as~~ to ease collision ~~of~~ between transmission positions of the beacon information ~~between~~ of the given wireless network and further beacon information of the another wireless networks.

14. (currently amended) A radio communication apparatus operating in ~~a particular~~ at least one of a plurality of wireless networks that co-exist, at least in part, in a common radio communication environment ~~wherein a plurality of wireless networks operating under control of a control station coexists~~, the radio communication apparatus comprising:

beacon information receiving means for receiving first beacon information from a first control station of a ~~local~~ first one of the plurality of wireless networks located in a predetermined beacon information receiving range;

beacon information detecting means for detecting second beacon information from a second control station of ~~another~~ second one of the plurality of wireless networks;

collision detecting means for detecting whether the first beacon information ~~of the local network~~ collides with the second beacon information ~~of another network~~; and

5

interference informing means for notifying a—the first control station of the local—first network of a beacon information collision detection result.

15. (currently amended) A radio communication apparatus according to Claim 14, wherein the beacon information detecting means sets a predetermined time for a—in the beacon information receiving range to detect the second beacon information received from a—the second control station of another—the second network.

16. (currently amended) A radio communication apparatus according to Claim 14, wherein the interference informing means for reporting a—notifies the first control station of the first network of the beacon information collision detection result by using a management time slot allocated to a—the first control station of the local—first network.

17. (currently amended) A radio communication method carried out in a particular—a radio communication apparatus operating in at least one of a plurality of wireless networks that co-exist, at least in part, in a common radio communication environment—wherein a plurality of wireless networks operating under control of a control station coexists, the method comprising:

a beacon information receiving step for receiving first beacon information from a first control station of a local—first one of the plurality of wireless networks located in a predetermined beacon information receiving range;

a beacon information detection step for detecting second beacon information from a second control station of another second one of the plurality of wireless networks;

a collision detection step for detecting whether the first beacon information of the local network—collides with the second beacon information of another network; and

an interference informing step for notifying a the first control station of the local first network of a beacon information collision detection result.

18. (currently amended) A radio communication method according to Claim 17, wherein the beacon information detection step sets a predetermined time for a in the beacon information receiving range to detect the second beacon information received from a the second control station of another the second network.

19. (currently amended) A radio communication method according to Claim 17, wherein the interference informing step for reporting a notifies the first control station of the first network of the beacon information collision detection result by using a management time slot allocated to a the first control station of the local first network.

20. (currently amended) A computer readable medium storing a computer program described in a computer readable format so as to having instructions for carrying out on a computer system, processing a radio communication method in for a control station to of a given one of a plurality of wireless networks that operateco-exist, at least in part, in a common radio communication environment wherein a plurality of wireless networks operating under the control of a control station coexist, the method comprising:

setting a transmission frame period of a local the given wireless network and transmitting, at a predetermined time within the transmission frame period, beacon information regarding resource allocation at a predetermined position of the transmission frame period;

detecting whether the local given wireless network interferes with another one of the plurality of wireless networks; and

setting, upon detection of interference between the given wireless network and the another wireless network, a

7

buffer frame period that is of different length than a the transmission frame period, thereby to change a position timing of the transmission frame period upon detection of interference between networks,

wherein the detecting step of detecting detects interference of the beacon information based on the basis of parameters obtained by receiving further beacon information transmitted received from the another network.

21. (currently amended) A computer readable medium storing a computer program described in a computer readable format so as to having instructions for carrying out, on a computer system, processing for an operation a radio communication method in a radio communication apparatus operating in a particular at least one of a plurality of wireless networks that co-exist, at least in part, in a common radio communication environment wherein a plurality of wireless networks operating under the control of a control station coexist, the method comprising:

receiving first beacon information from a first control station of a local first one of the plurality of wireless networks located in a predetermined beacon information receiving range;

detecting second beacon information from a second control station of another second one of the plurality of wireless networks;

detecting whether the first beacon information of the local network collides with the second beacon information of another network; and

notifying a the first control station of the local first network of a beacon information collision detection result.

22. (new)   A radio communication system, comprising:

a plurality of wireless networks, each one the plurality of wireless networks including an associated

8

plurality of radio communication apparatuses and an associated control station, the associated control station being operable to allocate a resource to each associated radio communication apparatus of that wireless network in an associated transmission frame period and to transmit a beacon signal at a predetermined timing within the associated transmission frame period,

wherein upon detection of interference between at least two of the plurality of wireless networks, a buffer frame period having a different length than the associated transmission frame period is set temporarily in one of the at least two wireless networks to prevent a collision between a first beacon signal transmitted by a first control station associated with the one of the at least two wireless networks and a second beacon signal transmitted by a second control station associated with another of the at least two wireless networks, the buffer frame period adjusting a length of an interval between the first beacon signal and the second beacon signal.

23. (new)   A radio communication system, comprising:

a plurality of wireless networks, each one the plurality of wireless networks including an associated plurality of radio communication apparatuses and an associated control station, the associated control station being operable to allocate a resource to each associated radio communication apparatus of that wireless network in a transmission frame period, the transmission frame period including a non-competitive transmission field;

wherein upon detection of interference between at least two of the plurality of wireless networks, a buffer frame period having a different length than the associated transmission frame period is set temporarily in one of the at least two wireless networks to prevent competition

between a first non-competitive transmission field of a first transmission frame period associated with the one of the at least two wireless networks and a second non-competitive transmission field of a second transmission frame period associated with another of the at least two wireless networks, the buffer frame period adjusting a positional relationship between a timing of the first transmission frame period and a timing of the second transmission frame period.